

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

BLACK BORDERS

- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

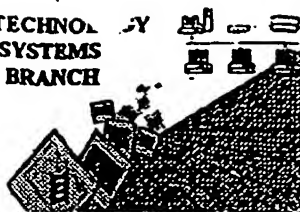
IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

COPY



BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/774,147
Source: IPWO
Date Processed by STIC: 2/18/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENT IN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221
Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<<http://www.uspto.gov/efc/efs/downloads/documents.htm>> , EFS Submission User Manual - cPAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two,
2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office,
Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03



IFWO

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/774,147

DATE: 02/18/2004

TIME: 15:00:45

Input Set : A:\10050-03USA.ST25.txt

Output Set: N:\CRF4\02182004\J774147.raw

```

3 <110> APPLICANT: POSTECH Foundation
4     POSCO
5     RYU, Sung-Ho
6     BAE, Yoe-Sik
7     PARK, Eun-Young
8     SUH, Pann-Ghill
10 <120> TITLE OF INVENTION: LEUKOCYTE STIMULATING PEPTIDES
12 <130> FILE REFERENCE: 10050-03USA
:--> 14 <140> CURRENT APPLICATION NUMBER: US/10/774,147
:--> 14 <141> CURRENT FILING DATE: 2004-02-06
14 <150> PRIOR APPLICATION NUMBER: US 60/445,621
15 <151> PRIOR FILING DATE: 2003-02-07
17 <160> NUMBER OF SEQ ID NOS: 36
19 <170> SOFTWARE: PatentIn version 3.2
21 <210> SEQ ID NO: 1
22 <211> LENGTH: 6
23 <212> TYPE: PRT
24 <213> ORGANISM: Artificial sequence
26 <220> FEATURE:
27 <223> OTHER INFORMATION: Hexapeptide
30 <220> FEATURE:
31 <221> NAME/KEY: MISC_FEATURE
32 <222> LOCATION: (1)..(1)
33 <223> OTHER INFORMATION: Xaa can be Lys, Met, or Arg
35 <220> FEATURE:
36 <221> NAME/KEY: MISC_FEATURE
37 <222> LOCATION: (3)..(3)
38 <223> OTHER INFORMATION: Xaa can be His, Lys, or Tyr
40 <220> FEATURE:
41 <221> NAME/KEY: MISC_FEATURE
42 <222> LOCATION: (4)..(4)
43 <223> OTHER INFORMATION: Xaa can be His, Lys, or Tyr
45 <220> FEATURE:
46 <221> NAME/KEY: MISC_FEATURE
47 <222> LOCATION: (5)..(5)
48 <223> OTHER INFORMATION: Xaa can be Lys, Pro, Arg, Val, or Tyr
50 <400> SEQUENCE: 1
--> 52 Xaa Lys Xaa Xaa Xaa Met
53 1 5
56 <210> SEQ ID NO: 2
57 <211> LENGTH: 6
58 <212> TYPE: PRT
59 <213> ORGANISM: Artificial sequence

```

Does Not Comply
Corrected Diskette Needed
(pg.1-5)

Invalid
Response

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/774,147

DATE: 02/18/2004

TIME: 15:00:45

Input Set : A:\10050-03USA.ST25.txt

Output Set: N:\CRF4\02182004\J774147.raw

61 <220> FEATURE:
62 <223> OTHER INFORMATION: Hexapeptide - Invalid Response
65 <220> FEATURE:
66 <221> NAME/KEY: misc_feature
67 <222> LOCATION: (4)..(6)
68 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
70 <400> SEQUENCE: 2
W--> 72 Lys Lys His Xaa Xaa Xaa
73 1 5
76 <210> SEQ ID NO: 3
77 <211> LENGTH: 6
78 <212> TYPE: PRT
79 <213> ORGANISM: Artificial sequence
81 <220> FEATURE:
82 <223> OTHER INFORMATION: Hexapeptide - Invalid Response
85 <220> FEATURE:
86 <221> NAME/KEY: misc_feature
87 <222> LOCATION: (4)..(6)
88 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
90 <400> SEQUENCE: 3
I--> 92 Lys Lys Tyr Xaa Xaa Xaa
93 1 5
96 <210> SEQ ID NO: 4
97 <211> LENGTH: 6
98 <212> TYPE: PRT
99 <213> ORGANISM: Artificial sequence
101 <220> FEATURE:
102 <223> OTHER INFORMATION: Hexapeptide - Invalid Response
105 <220> FEATURE:
106 <221> NAME/KEY: misc_feature
107 <222> LOCATION: (4)..(6)
108 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
110 <400> SEQUENCE: 4
I--> 112 Arg Lys Tyr Xaa Xaa Xaa
113 1 5
116 <210> SEQ ID NO: 5
117 <211> LENGTH: 6
118 <212> TYPE: PRT
119 <213> ORGANISM: Artificial sequence
121 <220> FEATURE:
122 <223> OTHER INFORMATION: Hexapeptide - Invalid Response
125 <220> FEATURE:
126 <221> NAME/KEY: misc_feature
127 <222> LOCATION: (4)..(6)
128 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
130 <400> SEQUENCE: 5
--> 132 Met Lys Tyr Xaa Xaa Xaa
133 1 5
136 <210> SEQ ID NO: 6

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/774,147

DATE: 02/18/2004

TIME: 15:00:45

Input Set : A:\10050-03USA.ST25.txt

Output Set: N:\CRF4\02182004\J774147.raw

137 <211> LENGTH: 6
138 <212> TYPE: PRT
139 <213> ORGANISM: Artificial sequence
141 <220> FEATURE:
142 <223> OTHER INFORMATION: Hexapeptide *Invalid Response*
145 <220> FEATURE:
146 <221> NAME/KEY: misc_feature
147 <222> LOCATION: (1)..(3)
148 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
150 <400> SEQUENCE: 6
W--> 152 Xaa Xaa Xaa His Lys Met
153 1 5
156 <210> SEQ ID NO: 7
157 <211> LENGTH: 6
158 <212> TYPE: PRT
159 <213> ORGANISM: Artificial sequence
161 <220> FEATURE:
162 <223> OTHER INFORMATION: Hexapeptide *Invalid Response*
165 <220> FEATURE:
166 <221> NAME/KEY: misc_feature
167 <222> LOCATION: (1)..(3)
168 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
170 <400> SEQUENCE: 7
V--> 172 Xaa Xaa Xaa His Val Met
173 1 5
176 <210> SEQ ID NO: 8
177 <211> LENGTH: 6
178 <212> TYPE: PRT
179 <213> ORGANISM: Artificial sequence
181 <220> FEATURE:
182 <223> OTHER INFORMATION: Hexapeptide *Invalid Response*
185 <220> FEATURE:
186 <221> NAME/KEY: misc_feature
187 <222> LOCATION: (1)..(3)
188 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
190 <400> SEQUENCE: 8
I--> 192 Xaa Xaa Xaa Tyr Lys Met
193 1 5
196 <210> SEQ ID NO: 9
197 <211> LENGTH: 6
198 <212> TYPE: PRT
199 <213> ORGANISM: Artificial sequence
201 <220> FEATURE:
202 <223> OTHER INFORMATION: Hexapeptide *Invalid Response*
205 <220> FEATURE:
206 <221> NAME/KEY: misc_feature
207 <222> LOCATION: (1)..(3)
208 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
210 <400> SEQUENCE: 9

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/774,147

DATE: 02/18/2004
TIME: 15:00:45

Input Set : A:\10050-03USA.ST25.txt
Output Set: N:\CRF4\02182004\J774147.raw

W--> 212 Xaa Xaa Xaa Tyr Pro Met

213 1 5
216 <210> SEQ ID NO: 10

217 <211> LENGTH: 6

218 <212> TYPE: PRT

219 <213> ORGANISM: Artificial sequence

221 <220> FEATURE:

222 <223> OTHER INFORMATION: Hexapeptide

225 <220> FEATURE:

226 <221> NAME/KEY: misc_feature

227 <222> LOCATION: (1)..(3)

228 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid

230 <400> SEQUENCE: 10

W--> 232 Xaa Xaa Xaa Tyr Val Met

233 1 5

236 <210> SEQ ID NO: 11

237 <211> LENGTH: 6

238 <212> TYPE: PRT

239 <213> ORGANISM: Artificial sequence

241 <220> FEATURE:

242 <223> OTHER INFORMATION: Hexapeptide

245 <220> FEATURE:

246 <221> NAME/KEY: misc_feature

247 <222> LOCATION: (1)..(3)

248 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid

250 <400> SEQUENCE: 11

W--> 252 Xaa Xaa Xaa Tyr Tyr Met

253 1 5

256 <210> SEQ ID NO: 12

257 <211> LENGTH: 6

258 <212> TYPE: PRT

259 <213> ORGANISM: Artificial sequence

261 <220> FEATURE:

262 <223> OTHER INFORMATION: Hexapeptide

265 <220> FEATURE:

266 <221> NAME/KEY: Peptide

267 <222> LOCATION: (1)..(6)

268 <223> OTHER INFORMATION: P1

270 <400> SEQUENCE: 12

272 Lys Lys His His Lys Met

273 1 5

276 <210> SEQ ID NO: 13

277 <211> LENGTH: 6

278 <212> TYPE: PRT

279 <213> ORGANISM: Artificial sequence

281 <220> FEATURE:

282 <223> OTHER INFORMATION: Hexapeptide

285 <220> FEATURE:

286 <221> NAME/KEY: Peptide

-Invalid Response

-Invalid Response

-Invalid Response

-Invalid Response

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/774,147

DATE: 02/18/2004
TIME: 15:00:45

Input Set : A:\10050-03USA.ST25.txt
Output Set: N:\CRF4\02182004\J774147.raw

287 <222> LOCATION: (1)..(6)
288 <223> OTHER INFORMATION: P2
290 <400> SEQUENCE: 13
292 Lys Lys His His Val Met
293 1 5
296 <210> SEQ ID NO: 14
297 <211> LENGTH: 6
298 <212> TYPE: PRT
299 <213> ORGANISM: Artificial sequence
301 <220> FEATURE:
302 <223> OTHER INFORMATION: Hexapeptide
305 <220> FEATURE:
306 <221> NAME/KEY: Peptide
307 <222> LOCATION: (1)..(6)
308 <223> OTHER INFORMATION: Hexapeptide
310 <220> FEATURE:
311 <221> NAME/KEY: Peptide
312 <222> LOCATION: (1)..(6)
313 <223> OTHER INFORMATION: P3
315 <400> SEQUENCE: 14
317 Lys Lys His Tyr Lys Met
318 1 5
321 <210> SEQ ID NO: 15
322 <211> LENGTH: 6
323 <212> TYPE: PRT
324 <213> ORGANISM: Artificial sequence
326 <220> FEATURE:
327 <223> OTHER INFORMATION: Hexapeptide
330 <220> FEATURE:
331 <221> NAME/KEY: Peptide
332 <222> LOCATION: (1)..(6)
333 <223> OTHER INFORMATION: P4
335 <400> SEQUENCE: 15
337 Lys Lys His Tyr Pro Met
338 1 5
341 <210> SEQ ID NO: 16
342 <211> LENGTH: 6
343 <212> TYPE: PRT
344 <213> ORGANISM: Artificial sequence
346 <220> FEATURE:
347 <223> OTHER INFORMATION: Hexapeptide
350 <220> FEATURE:
351 <221> NAME/KEY: Peptide
352 <222> LOCATION: (1)..(6)
353 <223> OTHER INFORMATION: P5
355 <400> SEQUENCE: 16
357 Lys Lys His Tyr Val Met
358 1 5
361 <210> SEQ ID NO: 17

Invalid Response

Invalid Response

Invalid Response

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/774,147

DATE: 02/18/2004
TIME: 15:00:46

Input Set : A:\10050-03USA.ST25.txt
Output Set: N:\CRF4\02182004\J774147.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 1,3,4,5 ✓
Seq#:2; Xaa Pos. 4,5,6 ✓
Seq#:3; Xaa Pos. 4,5,6 ✓
Seq#:4; Xaa Pos. 4,5,6 ✓
Seq#:5; Xaa Pos. 4,5,6 ✓
Seq#:6; Xaa Pos. 1,2,3 ✓
Seq#:7; Xaa Pos. 1,2,3 ✓
Seq#:8; Xaa Pos. 1,2,3 ✓
Seq#:9; Xaa Pos. 1,2,3 ✓
Seq#:10; Xaa Pos. 1,2,3 ✓
Seq#:11; Xaa Pos. 1,2,3 ✓

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/774,147

DATE: 02/18/2004

TIME: 15:00:46

Input Set : A:\10050-03USA.ST25.txt

Output Set: N:\CRF4\02182004\J774147.raw

L:14 M:270 C: Current Application Number differs, Replaced Current Application No
L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:52 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:72 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:92 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:112 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:132 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
L:152 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0
L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0
L:192 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:0
L:212 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:0
L:232 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:0
L:252 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:0